UNIVERSITY INSTITUTE of COMPUTING
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Title

FARMER'S AID PORTAL

Minor project – Report

Submitted by

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IN

UNIVERSITY INSTITUTE OF COMPUTING

Division- BCA

CHANDIGARH UNIVERSITY
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BONAFIDE CERTIFICATE

Certified that this project report **FARMER'S AID PORTAL** is the bonafide work of **SHREY DIKSHANT** who carried out the project work under my/our supervision.

SIGNATURE	SIGNATURE
Ms. Jyoti Saini	Ms. Kavita Gupta
SUPERVISOR	HEAD OF THE DEPARTMENT

Submitted for the project viva-voce examination held on___9/11/2022_____

INTERNAL EXAMINER **EXTERNAL EXAMINER**

Acknowledgement

The satisfaction that accompanies that the successful completion of this task would be incomplete without the mention of people whose ceaseless cooperation made it possible, whose constant guidance and encouragement crown all efforts with success.
I am grateful to my project supervisor Ms. Jyoti Saini Mam for the guidance, inspiration and constructive suggestions that helped me in the preparation of this project.

I am also thankful to my team members who worked together with me for the successful completion of the project.

Student Name: Shrey Dikshant

Project Name: Farmer's Aid Portal

UID: 20BCA1513

Table of Contents

Rubrics -4

Chapter1: Introduction

i. Title of the project:

FARMER'S AID PORTAL

ii. Client identification and recognition of need:

We have three main sections: -

- First of all is the admin, he will be able to access the financial insights, view the farmer's record and add regional managers.
- Second, we have the field staff.
  He will be able to add farmers, view and maintain details and provide training to the farmers as well.
- Third, farmers, who will be able to access his profile, and also check the crops produced as well as the income generated.

iii. Recognition & knowledge of relevant contemporary issues:

- We noticed, that farmers of small villages are not very educated and they don't have knowledge of technology or local resources and the market price for their crop.

- In order to solve this problem and help the farmers especially of remote areas, we have thought of designing a portal that will help farmers understand the economic-social benefits and analyze the
- data so that they can get maximum profit.

iv. Project Identification:

- While going through different project ideas, we came across this problem statement and realized that we can do so much for farmers with our innovative ideas and tech knowledge.
- So, we thought of making a place for farmers which would help them get maximum benefits.
- We researched on this topic and realized that there is no proper AID/HELP for the farmers, so we took it upon ourselves to introduce something useful and new that will not only help with the farmers growth but also our country's economic development because farmers are our country's backbone.

v. Task identification:

- Researched on the topics: -

  Farmers need

  Financial insights

  Revenue management

Farmers records

Farmers basic details

Crop production and income

Need for regional managers

Analysis of data and verification

Admin and field staff roles

Asset management

KYC and farmers bank account

Need for basic education

- thoroughly went through problems of farmers and thought about the possible solutions that can be provided by our team and our project's future scope.
- For starters we picked a remote area with many underdeveloped villages from Uttarakhand.
- Our project is divided into three main sections namely:
  - Admin
  - Field staff
  - Farmers

vi. <u>Project Timeline:</u>

- Researched on the topic- how we get the topic, planning etc. (1^{st} -2^{nd} week)
- Define problem statements- found numerous problems to work on

(2nd -4th week)

- Solution identification- created modern solutions for different problems

  (3rd - 4nd week)

- Client identification- divided our project into main members

  (3rd – 4th week)

- Rough prototype- every team member provided his/her work

  (3rd – 6th week)

- Other issues identification and solutions- considered and corrected new problems faced

  (5th – 6th week)

- Finalizing prototype- finalize the whole prototype with new updates and features

  (7th -8th week)

vii. Organization of the report :

Our tasks has been divided into

- Rubrics
- PPt
- Coding part

In our coding part:

Our portal has basically two main divisions:

- Regional head/farmers
- Admin
- Login-Signup

Under regional head we have to create 4 navigation pages namely view farmers, farmer activity, KYC and Resources
This is handled by two team members.

Under Admin we have to create 3 pages namely Dashborad, Data analysis and farmer's profile.
This is handled by other two team members

Chapter2-Literature Survey

i. Timeline of the reported problem as investigated throughout the world:

Lack of knowledge, lack of resources, lack of hold over prices for their produce for farmers has always been a standing issue which has been overlooked by the world.
To make a better living, to provide them with all the resources at affordable prices, to ensure a relevant price for their produce as well as the growth of GDP and Economy in agriculture sector we came up with problem statement.
Which will ensure a brighter future for the farmers as well as the country.

It is said that there is prominence of manual laborers in India and we have to save them from exploitation and to keep a check on our country's economy.

ii. proposed solutions by different researchers:

Title: Indian Agriculture, Farmer and Labour: Issues and Reforms
Editors: Ajay Kumar, Sovik Mukherjee, Prof. D. Thirumaran and Surajit Mandal provided The lack of proper storage facilitiesresults in degradation of the quality of the produce. This, in turn,affects the volume of exports causing loss of potential income. Not tomention wastage of the produce. Estimates say that 9.3 per cent of the produce gets wasted because of improper storage and maintenance.To solve the issue, there is an ongoing effort initiated by the Food Corporation of India, the State Warehousing Corporation and the Central Warehousing Corporation to expand the storage facilities and establish a bu?er stock for contingencies.

Dr G. V. Ramanjaneyulu, Director of Centre for Sustainable Agriculture reminds us that "most of the Agricultural Research in India is based on the US model of research. Further the content and the institutional systems are all based on US conditions whereas the climatic situations, the economic conditions, the size of the farms and the soil situations are very different in India." This agricultural science suits larger farms with less manpower where one can not have multi-crop systems, as the machines which replace people can only deal with standardized mono-crops. In turn the large mono-crop requires chemical oriented pest management practices and soil fertilizing methods.

iii. Problem Definition:

- Farmers will have Broadcasting support if they need any assistance from other farmers or the Regional Field Managers.
- There is a feature in in which the Regional Field Managers or Admins can get reports on farms according to the regions they are situated in.
- We can get a detailed report of every farmer who is authorized to the portal i.e. Assets used, Materials consumed etc.
- There is a strict feature of KYC for farmers for validation to avoid potential frauds and scams to the service.
- If a farmer is lagging behind or wants to learn something, the Regional Field Managers can send them resources (e.g. Educational videos, Articles).
- Farmers can request directly to the Regional Field Managers via the mobile application or website for the need of assets or raw materials.
- The portal will come with a Multi-lingual support which will further enhance the experience for the farmers.
- Other than the website, the portal will also have a web application which will further increase the reliability and versatility for the farmers.

viii. Goals and Objectives:

- There is a weekly farmers report for the better understanding of everything which are logistics, need of the assets etc.
- Analyzing of data for the better understanding for social and economical impact.
- Bringing technological awareness to the farmers to help them better socialize to the present urban society.
- Providing farmers a simple and easy-to-use interface for their assistance and services.
- The data which is collected from the weekly farmers report will be converted into a graphical format for the better understand for the farmers, field managers and the admins.
- The main goal of the portal is to work in harmony and the upliftment of working class because they are the ones who will keep our future safe and bright.

Chapter3: Design Flow/Process

i. Concept Generation:

As we have noticed that the state of farmers is declining in this country day by day, observing these scenarios, reading about the adversities faced by the farmers we came up with this project.
In which we not only helping farmers but as well as trying to get a better hold over economy growth.

We want to make the lives of the farmers better by showing an overall impact in a year.

ii. Evaluation & Selection of Specifications/Features:

To evaluate, we have gone through a process of brainstorming and different articles, people's researches and by crisscrossing many ideas we came up with these specific features namely:

- Simple and User-friendly portal
- Different database for different sections for easy handling of their needs
- Graphical form of data for better understanding
- Increase in efficiency
- Basic education for farmers for mutual growth

iii. Design Constraint Regulations:

Design constraints can have a significant impact on the design and should be validated prior to imposing them on the solution. That is why we have gone through procedural steps of critical thinking.

- Catching up with the deadlines
- Easy handling and working on time
- Great visibility of data
- Identifying the specific constraints for each category, and capture them as system requirements

iv. Economic, Environmental, Health, manufacturability, Safety, Professional, Ethical, Social & Political Issues considered in design:

- Promotion of organic farming
- Data of farmers will be kept safe and secure
- Only persons with legitimate accounts can use the portal
- Measures taken to increase economic growth
- Real price for the produce will be provided
- Educational and new technological techniques should be brought amongst farmers.

v. Design Flow:

These were the previous ideas that were used but were not implemented and in place of these the final build was implemented. These were the ideas that were supposed to be implemented but were later dashed off. Some of our ideas that were planned but were not used are below the following:

vi. Best Design selection:

The final build of the portal was selected because it contains a more user-friendly option. Now, it contains separate portal for admin and farmers which will give an ease of access to both of them. There was a major change in the representation of data. Earlier, it was raw data that was displayed on the portal but now the data is represented graphically and the statistics have more depth to them. In the earlier build, there was no education material for the farmers to make them self-taught but now there is a separate Self-Learning section for the farmers where they can get hold of the knowledge which is the arrival of new technology and techniques which are getting introduced to the farming world everyday.

Chapter4: Results analysis and validation

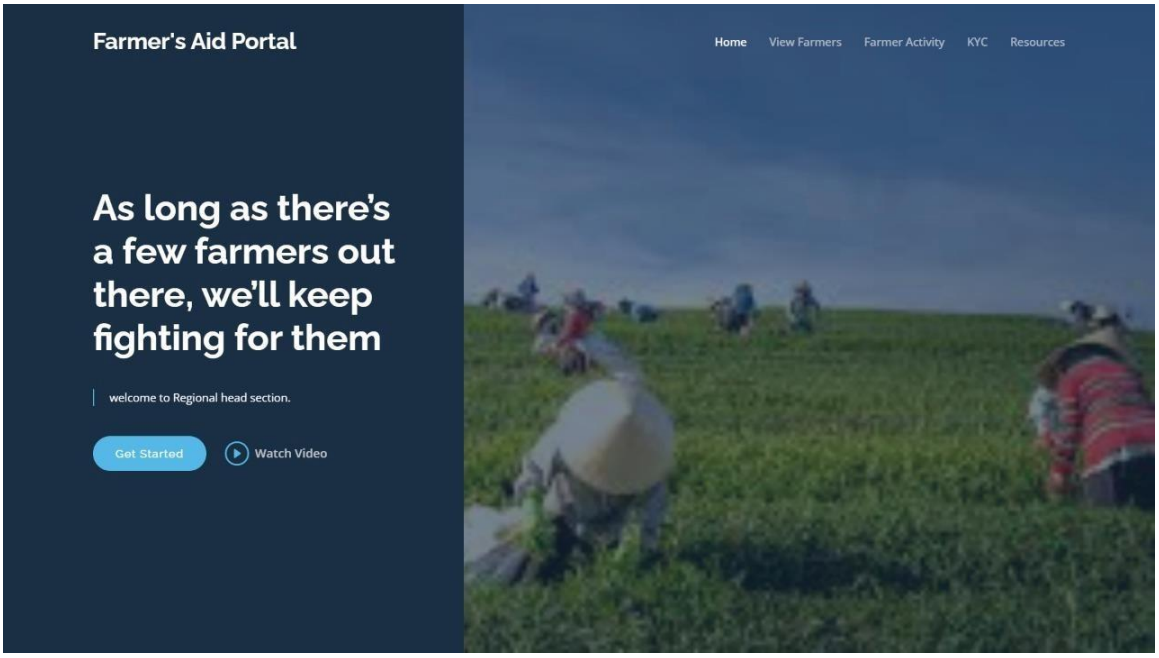
i. Implementation of design using Modern Engineering tools in analysis:

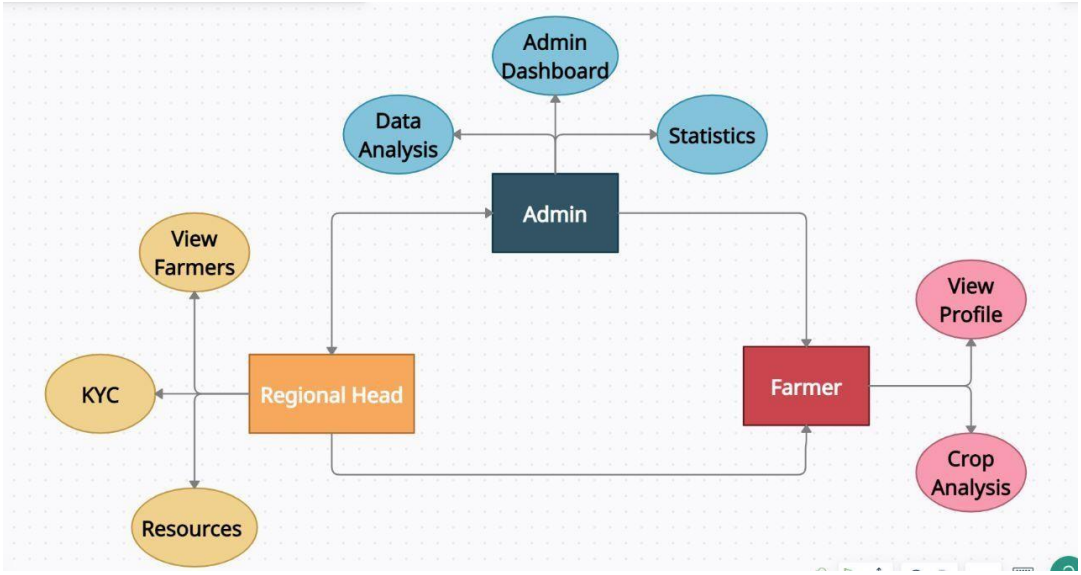
Modern coding compilers used in our project are:

- VS code for editing
- Atom
- Web Browser
- MSOffice word, PowerPoint
- Online ER diagram AI

ii. design drawings/schematics/ solid models

we have used graph charts, bar charts, images, links , ER diagrams forms, tables in our project.





iii. project management:

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Chapter 5: Conclusion and future work

i. Deviation from expected results and way ahead:

Many manufacturing companies with advanced product development implement increasingly structured development processes, with the aim to improve efficiency and effectiveness. They simultaneously aim to increase the predictability of the development processes. As a consequence, in large international manufacturing companies with multi-project environments, a single project is interrelated with several other projects, interdependent regarding inputs, goals, resources, and outputs. Engwall also highlights how interrelated activities distributed in different projects' phases, experiences, institutional forces, and future

aspirations make up the project context.

The nature of product development projects means that most activities in early project phases are based on uncertainty in goals, knowledge, information, and plans. Further, as these activities are conducted in a highly dynamic and interrelated environment, deviations from the ideal are inevitable. Planning will always be vital for project performance, but so will the practice of managing deviations. Actors experience that these diversions from the ideal interfere with project progress and targets and need attention, resources, and action to be managed.

ii. References:

- Anon, Agriculture & Horticulture Corner. Farmer Portal : Home Page. Available at: https://farmer.gov.in/ [Accessed September 11, 2022].
- Anon, Home: Department of agriculture & farmers welfare: Mo A&FW: Goi. Home | Department of Agriculture & Farmers Welfare | Mo A&FW | GoI.
- Available at: https://agricoop.nic.in/en [Accessed September 8, 2022].

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iii. Appendix

Appendix Contents

A. Ten Year Vision

B. Kara Martin Thesis: Farmer's Perceptions of Farming in King County: The Challenges, Industry Trends and Needed Resources and Services.

C. Consumer Opinion Survey

D. Community Partners Survey and Summarized Results

APPENDIX A

Goals: Overall goals

1. To preserve agricultural lands within King County's Agricultural Production Districts and Rural Areas; and

2. To promote and nurture the business of farming in King County for this and future generations.

10 year goals.

The Vision More Farmers Farming

1. Promote Access to Farmland How might we achieve the goal? ¬

Conduct an economic analysis of purchasing additional development rights on lands where development rights have already been acquired by the County to reduce sub dividing

¬ Draft criteria suggesting that applicants be asked to describe how farming will continue on their land for the foreseeable future

¬ Give farmers who agree to participate in the farm link/farm mentoring program, which matches new farmers with retiring farmers (described below), special consideration in the evaluation of the property

¬ Work on ways to keep FPP land in active farming, especially when FPP land changes hands. ¬ Include a sizable amount of funds to acquire additional development rights in King County in next major funding initiative for the purpose of acquiring more farmland.

¬ Utilize clustering, transfer of development rights, and density bonuses to encourage landowners to keep their lands in agricultural use

¬ Work on home size issues as related to affordability on Ag zoned land.

APPENDIX B

On July 1, 2008 the King County Council adopted Ordinance 16172 calling for a study be conducted "to address the future of agriculture" in the County's zoned agriculture production districts (APDs). The King County Agriculture Commission with the aid of the King County Ag Programs staff within the Department of Natural Resources and Parks (DNRP) was charged with the task of completing this report dubbed the FARMS Report or Future of Agriculture: Realize Meaningful Solutions Report by January 1, 2010. The Ordinance 16172 also required the farming community's input to be included in the study's planning process. As a result, the County held five public meetings and conducted a mail-in and online survey to collect the input of local farmers. This professional project of a University of Washington graduate student is a contribution to the larger FARMS Report. This report focuses specifically on identifying the farmers' perceptions of farming in King County based on the collected feedback. A combination of quantitative and qualitative analysis of the farmer's survey responses and public meeting comments are categorized into three general themes: (1) major challenges farmers confront, (2) emerging trends in farming and (3) needed resources and services to keep farming viable in the county. The themes identified reflect the perceptions of farmers through the compilation of comments from 89 surveys and over 170 public meeting participants. A comparison of the findings to Washington State's The Future of Farming: Strategic Plan for Washington Agriculture 2020 and Beyond (2009) and King County's Forest and Farms Report (1996) demonstrate that the barriers farmers identified are not longstanding and necessarily unique to King County. The report also reviews commonly used agriculture protection regulations and policies in United States and takes a historical look at the rural landscape in King County and agriculture

programming implemented in King County over the past several decades. The report findings are solely based on the farmers' perceptions which are not necessarily in alignment with the general public's views on agriculture. Their views and opinions are at times contrary to other county priorities.

APPENDIX C

In order to increase understanding of King County residents' opinions of and experiences with farms and farming in the county, the Water and Land Resources Division, King County Department of Natural Resources and Parks, conducted a survey of county residents. Research results will be used in the report on Future of Agriculture, Realized Meaningful Solutions (FARMS) and in policy and program planning relating to agriculture in the county. This report describes the survey on agriculture in King County.

Research objectives are discussed first, followed by research methods, results, and key findings and conclusions. The appendix contains a copy of the questionnaire used in the survey. Objectives The information objectives of the survey on agriculture in King County included the following:

• Assess King County residents' opinions of the importance of having farms and farming in King County, and explore residents' impressions of farms and farming in the county;

• Assess residents' opinions of the importance being able to engage in selected activities related to local farms and farming, including purchasing farm food products and visiting farms;

• Examine the frequency with which residents purchase food produced on King County Farms, locations in which the food is purchased, and importance of selected factors in the decision to purchase food from local farms.

• Examine the frequency with which residents visit food-producing and horse farms in King County; and

• Assess residents' opinions of the importance of using and preserving land for agriculture in King County and continuing support for farmers in the county.

Research Methods

Between March 16 and March 26, 2009, a total of 450 telephone interviews were completed with residents of King County. The first 400 interviews were completed with individuals who were randomly selected from lists of county residents; 360 interviews

APPENDIX D

Community Partners Survey and Summarized Results

As part of the research for the FARMS Report, the King County Agriculture Program surveyed about 70 organizations that partner with the King County Agriculture Program. These groups vary significantly and include governmental organizations that the county works with on land use, code and policy; nonprofits that the county works with in areas such as marketing, economic development, and educational programming; groups that receive financial assistance; and representatives of farmer groups that are impacted by county regulations and policy. Thirty responses were returned.

Following is a short summary of the results.

Question 1: Please identify the challenges, concerns and services that are the most important for organizations and local governments to be prioritizing in work plans over the next 5 – 10 years in order to help ensure the future of farming in King County and western Washington. 30 responses

• Access to land: cost, protecting land inside and outside the Agricultural Production

Districts, farmland preservation programs (77 percent)

• Access to appropriate infrastructure: process, distribution and transportation needs (67 percent)

• Development pressures: incompatible land uses, McMansions, cumulative impacts of growth (43 percent)

• Market Development: new markets and products that provide a fair price—farmers markets, institutional sales to schools, health care, hotels (40 percent)

• Farmer transitions: succession planning for retiring farmers, support for new farmers such as finding land, training, technical and financial support (37 percent) • Flooding impacts, regulatory issues, and access to capital (all at 33 percent)

Question 2a: Please identify the top five challenges, concerns and services your organization is prioritizing to work on for the next 5-10 years in the first column. (30 responses)

Marketing and Consumer Education (17 responses)

• Education and Training (16 responses)

• Market Development (15 responses)

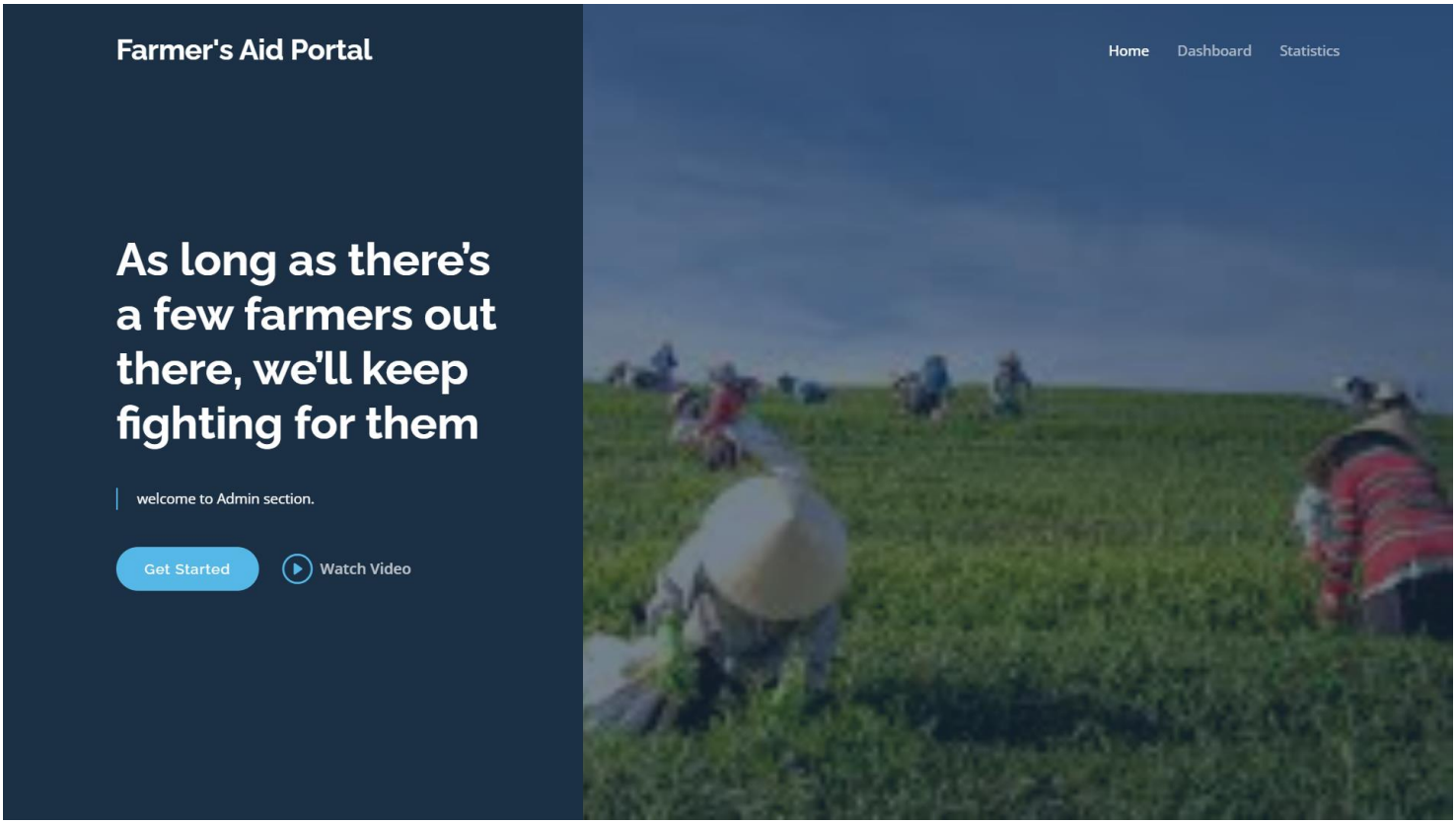
• Access to appropriate infrastructure (14 responses)

• Research to gather essential data (11 responses)

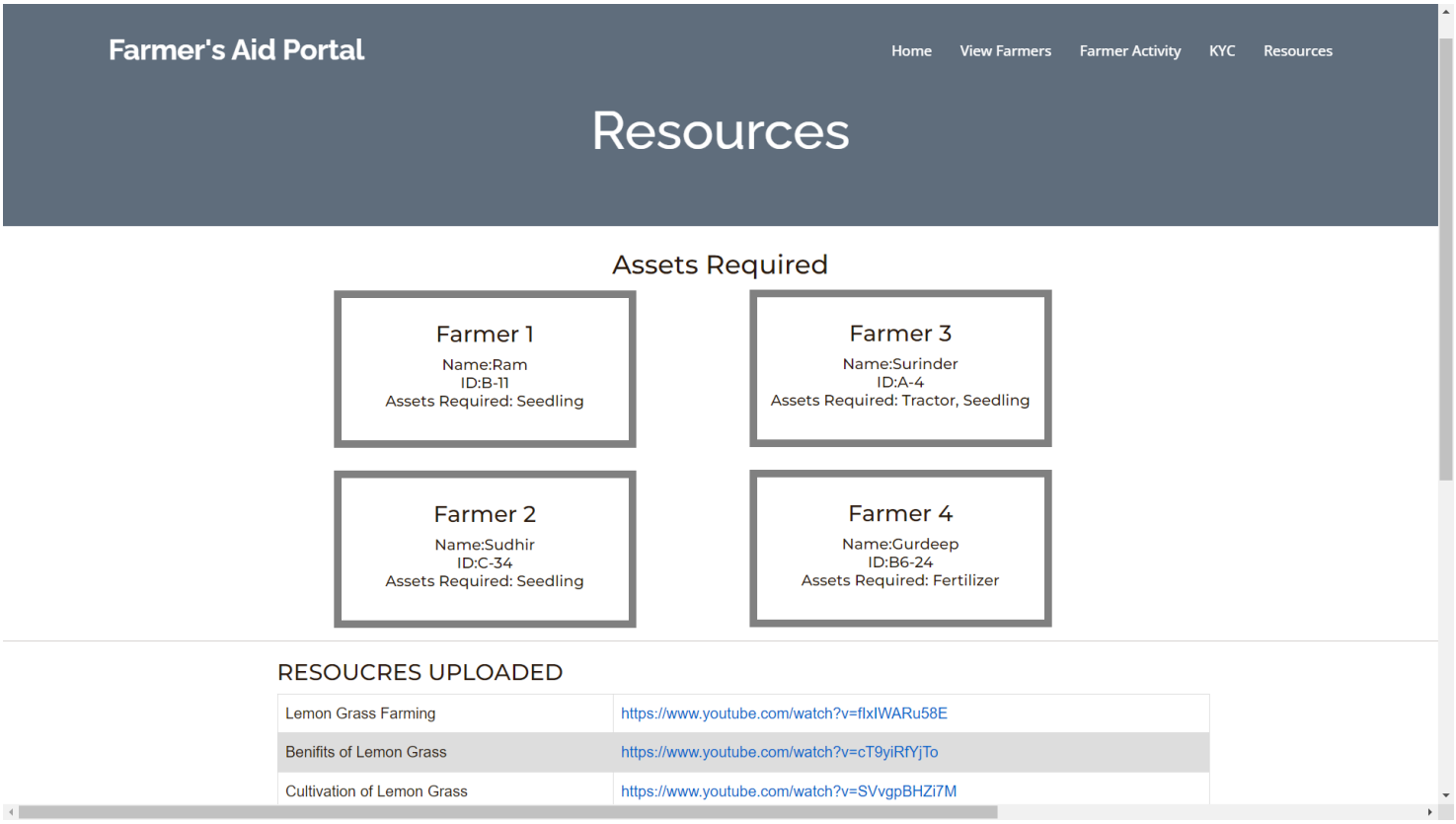
• Advocacy (10 responses)

iv. User Manual

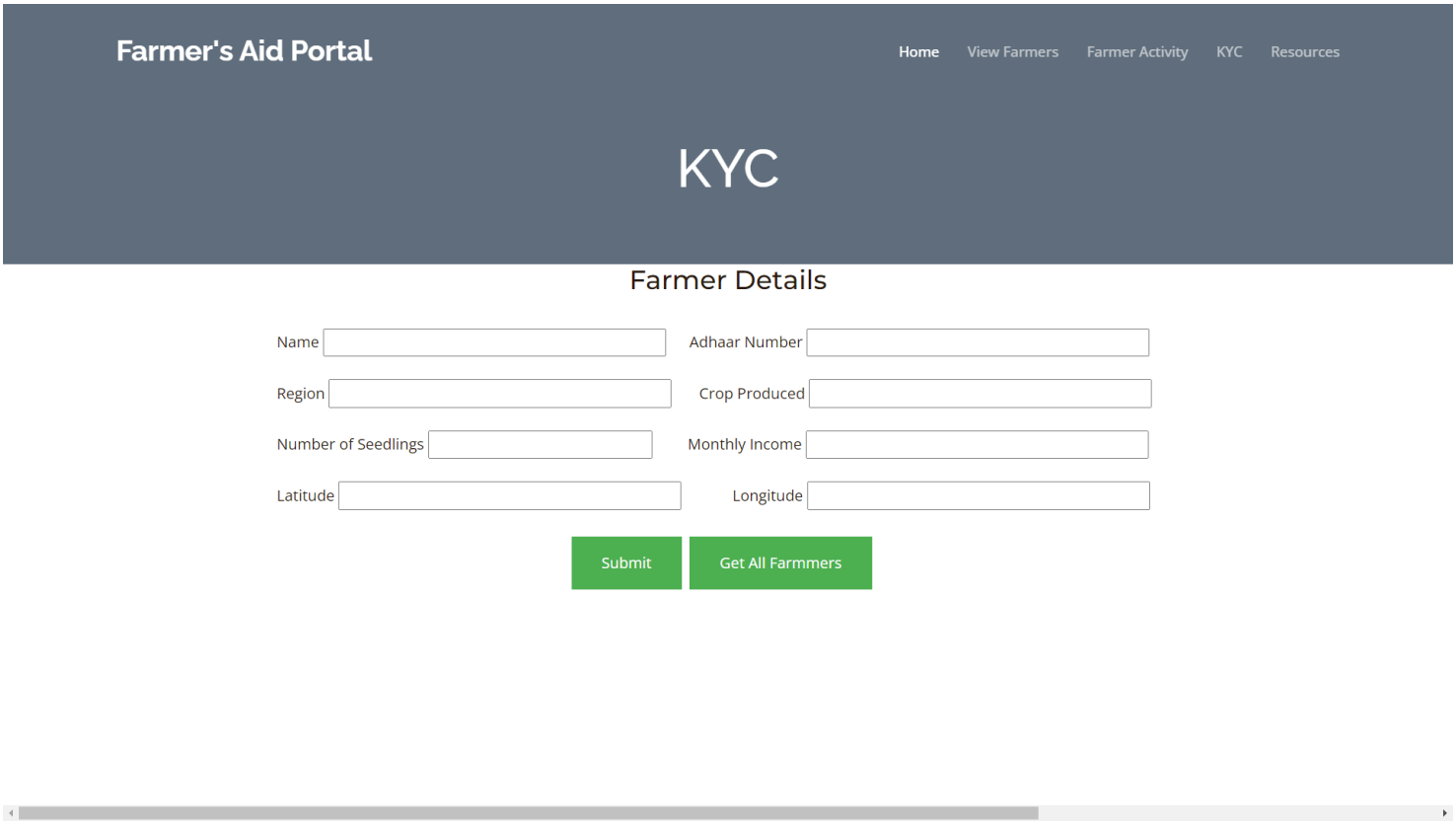
Admin home page



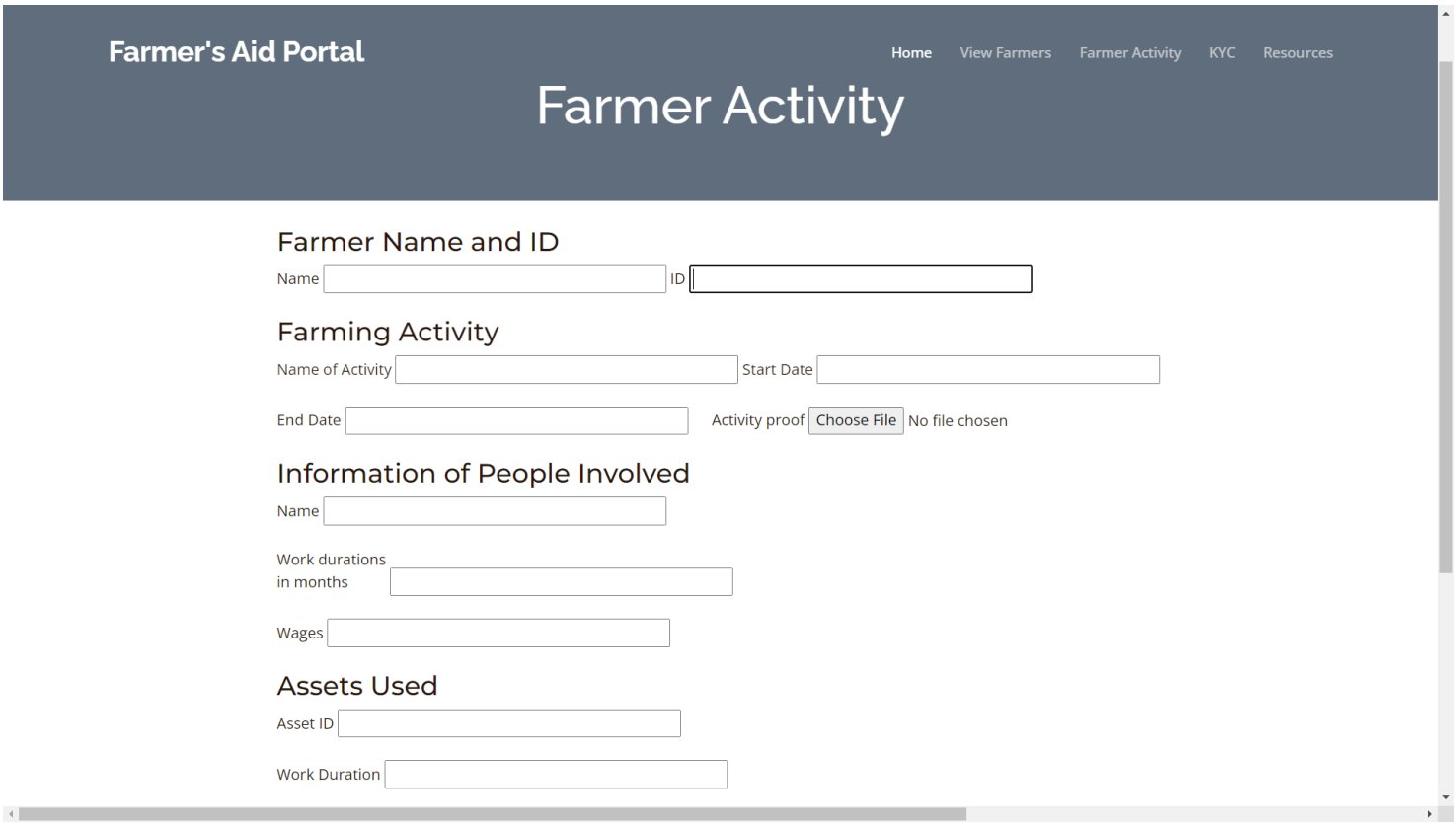
Resources page


Farmer's Aid Portal
Home
View Farmers
Farmer Activity
KYC
Resources
Resources
Assets Required
Farmer 1
Name:Ram
ID:B-11
Assets Required: Seedling
Farmer 3
Name:Surinder
ID:A-4
Assets Required: Tractor, Seedling
Farmer 2
Name:Sudhir
ID:C-34
Assets Required: Seedling
Farmer 4
Name:Gurdeep
ID:B6-24
Assets Required: Fertilizer
RESOUCRES UPLOADED
Lemon Grass Farming
https://www.youtube.com/watch?v=fIxIWARu58E
Benifits of Lemon Grass
https://www.youtube.com/watch?v=cT9yiRfYjTo
Cultivation of Lemon Grass
https://www.youtube.com/watch?v=SVvgpBHZi7M

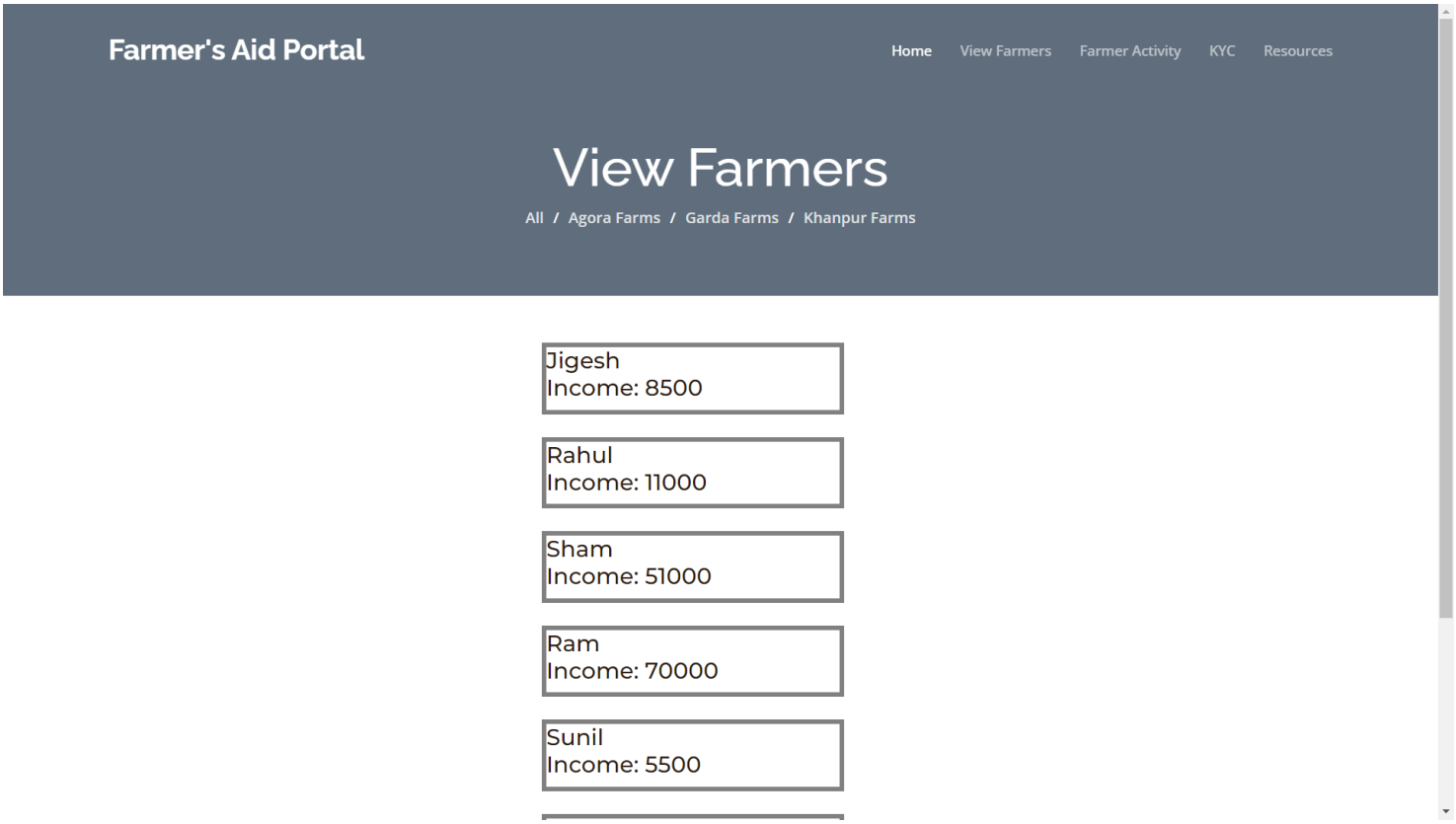
KYC page


Farmer's Aid Portal
Home
View Farmers
Farmer Activity
KYC
Resources
KYC
Farmer Details
Name
Adhaar Number
Region
Crop Produced
Number of Seedlings
Monthly Income
Latitude
Longitude
Submit
Get All Farmmers

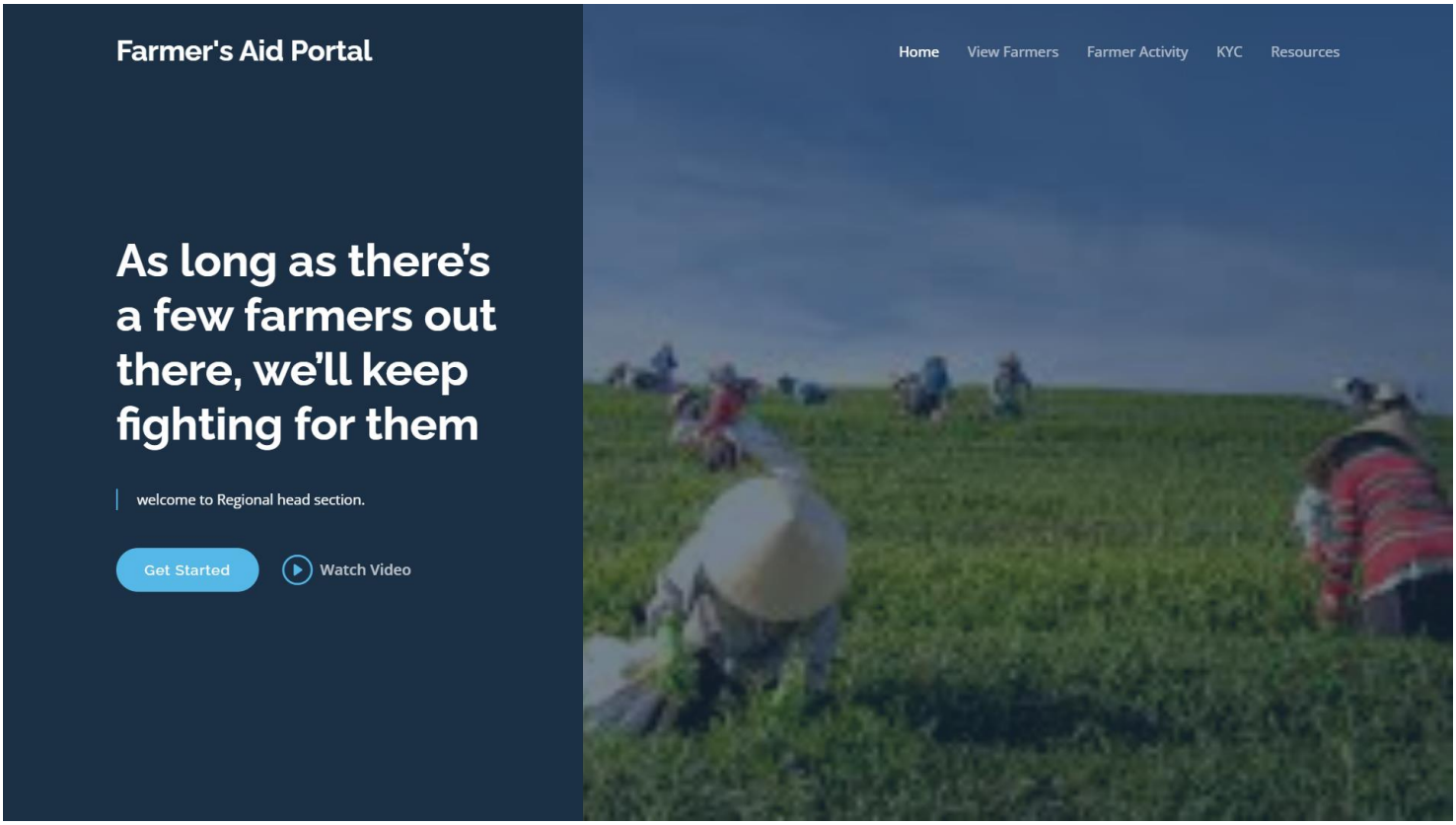
Farmers Activity



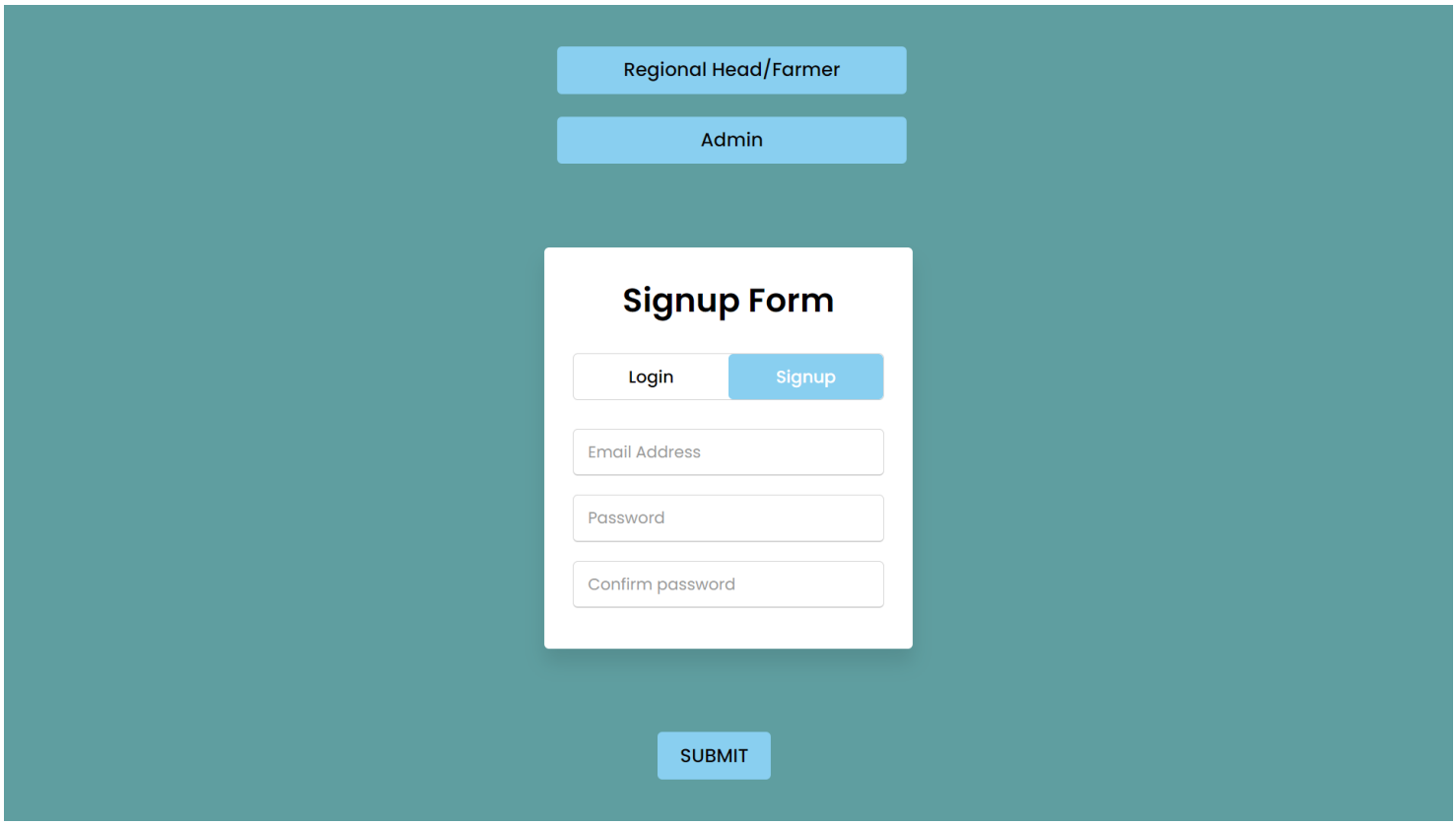
View Farmers

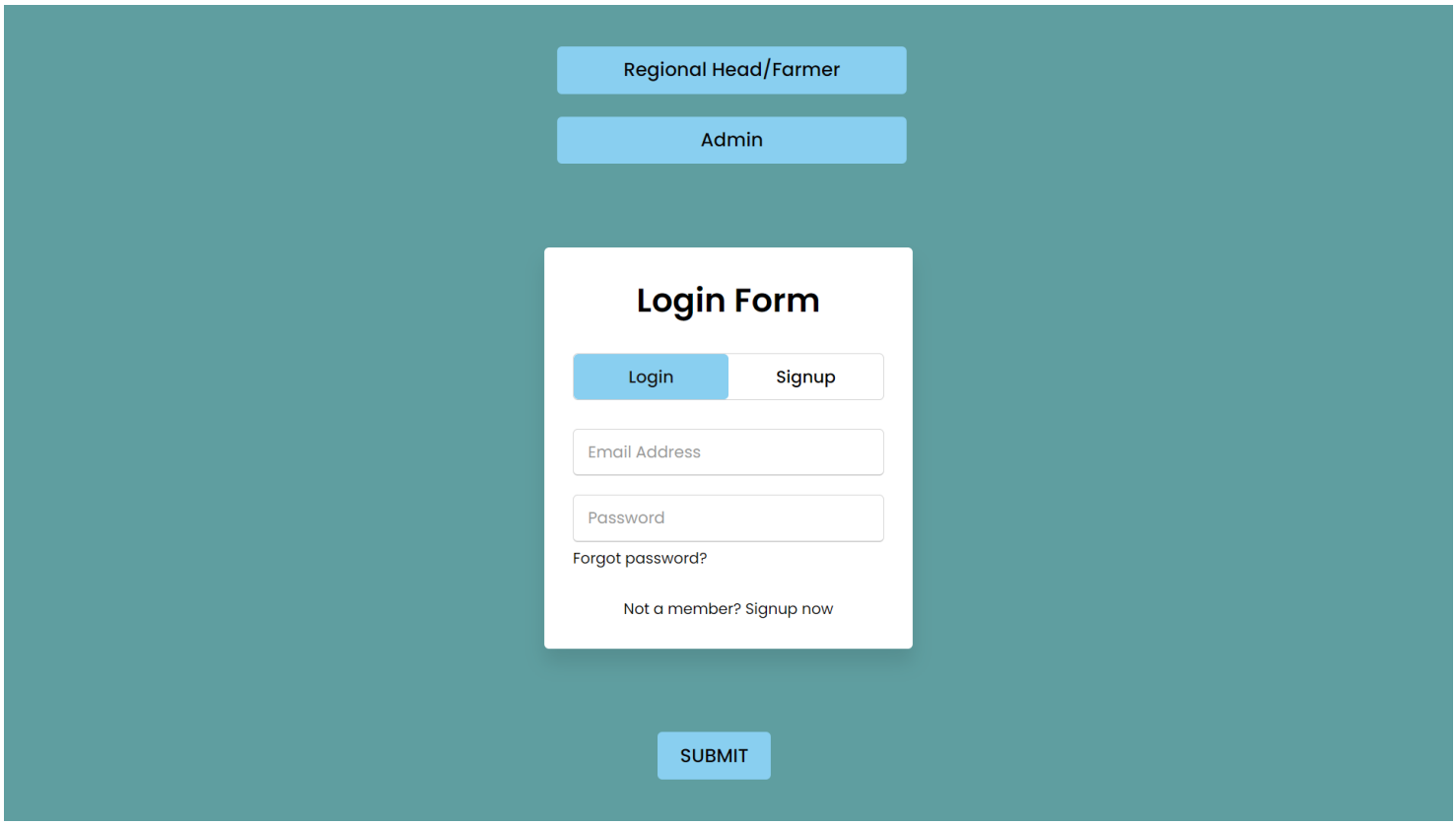


Regional home page

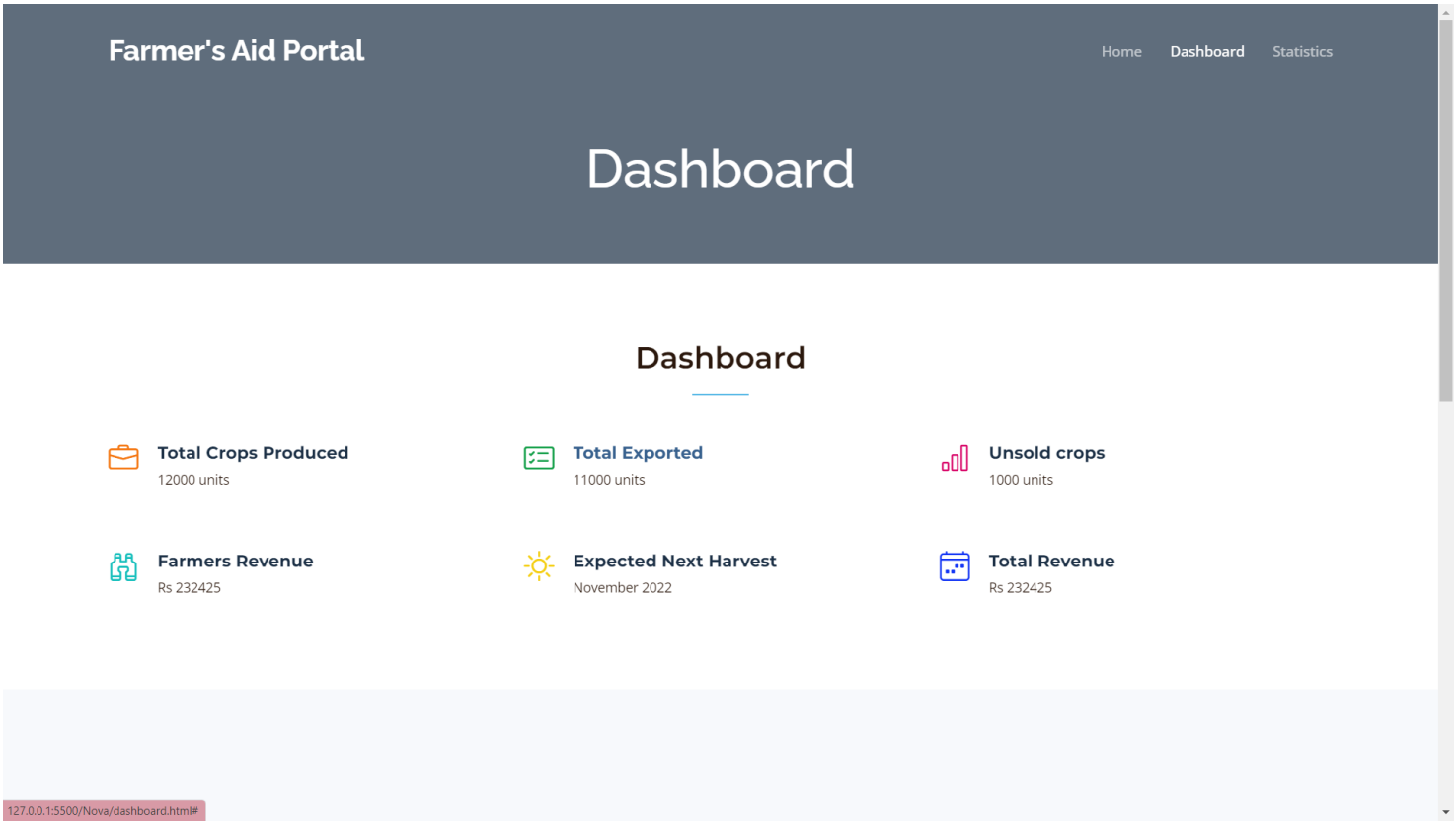


Login and sign up as regional and admin





Dashboard


Farmer's Aid Portal
Home
Dashboard
Statistics
Dashboard
Dashboard
Total Crops Produced
12000 units
Total Exported
11000 units
Unsold crops
1000 units
Farmers Revenue
Rs 232425
Expected Next Harvest
November 2022
Total Revenue
Rs 232425
127.0.0.1:5500/Nova/dashboard.html#